(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 8 January 2004 (08.01.2004)

PCT

(10) International Publication Number WO 2004/003900 A1

(51) International Patent Classification⁷: H01S 5/0683, 5/40

G11B 7/125,

(21) International Application Number:

PCT/EP2003/006342

(22) International Filing Date:

16 June 2003 (16.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

102 29 234.5

28 June 2002 (28.06.2002) DE

- (71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46 Quai A. le Gallo, F-92100 Boulogne-Billancourt (FR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ZUCKER, Friedhelm [DE/DE]; Innsbrucker Str. 4, 78052 Villingen-Schwenningen (DE).
- (74) Agent: KURTH, Dieter; Deutsche Thomson-Brandt GmbH, European Patent Operations, Karl-Wiechert-Allee 74, 30625 Hannover (DE).

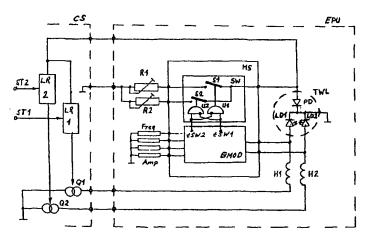
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: INTRINSICALLY SAFE PICK-UP FOR REPRODUCTION OR RECORDING DEVICES FOR DIFFERENT OPTI-CAL RECORDING MEDIA



(57) Abstract: The invention relates to an intrinsically safe pick-up for reproduction or recording devices for different optical recording media, which have at least two lasers with a monitor diode which is used jointly for the lasers, such as a monitor diode which is integrated in a twin laser (TWL). The intrinsically safe pick-up has a switching means (SW), which is formed by interlocked switches (S1, S2), by means of which both a reference value, which is associated with one laser diode (LD1 or LD2) with the monitor diode (PD), is produced in order to control the light power of the laser diode (LD1 or LD2), while at the same time preventing simultaneous actuation of the laser diodes (LD1 or LD2) or incorrect association of a light power adjusting means leading to overloading or to destruction of the twin laser (TWL). A reproduction or recording device which is designed with an intrinsically safe pick-up for different optical recording media does not require any additional changeover switches, which would otherwise need to be provided between a DVD/CD circuit (CS) and the pick-up. The invention is intended to be used for reproduction or recording devices for different optical recording media.

